DOCUMENT RESUME

ED 132 637 CS 501 580

AUTHOR Wrather, Nancy
TITLE Describing Communicative Functions in a First Grade Classroom.
PUB DATE 76
NOTE 22p.; Report prepared at University of Texas at Austin

EDRS PRICE MF-$0.83 HC-$1.67 Plus Postage.
DESCRIPTORS *Child Language; *Communication (Thought Transfer); Grade 1; *Interaction; *Language Research; Peer Relationship; Primary Education; Student Behavior; Student Teacher Relationship; *Verbal Communication

ABSTRACT

The purpose of this study was to synthesize a category system for observation of communicative functions in children's speech and to test that category system by recording observations of interactions within a first-grade classroom. The observation system which was designed attempts to account for all factors of a communication situation and to outline detailed functions of verbal behavior. Five primary functional categories were developed and three levels of functional analysis were employed. The system was used to observe ten hours of naturally occurring communications in the classroom. From these observations, five communication situations were selected and described in detail. The most important finding of the study was that this system of observation produced rich and relevant data with regard to communication interactions. Teacher/student interactions proved to be quite different from peer interactions. A functional system does not need to assume that an utterance serves only one function or works at only one system level. Furthermore, a functional system can account for culturally defined realizations of utterances. (Author/JM)

****
* Documents acquired by ERIC include many informal unpublished *
* materials not available from other sources. ERIC makes every effort *
* to obtain the best copy available. Nevertheless, items of marginal *
* reproducibility are often encountered and this affects the quality *
* of the microfiche and hardcopy reproductions ERIC makes available *
* via the ERIC Document Reproduction Service (EDRS). EDRS is not *
* responsible for the quality of the original document. Reproductions *
* supplied by EDRS are the best that can be made from the original. *
****

U S DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

ED132637

DESCRIBING COMMUNICATIVE FUNCTIONS IN A FIRST GRADE CLASSROOM

NANCY WRATHER

DEPARTMENT OF SPEECH COMMUNICATION
THE UNIVERSITY OF TEXAS AT AUSTIN
AUSTIN, TEXAS 78712

"PERMISSION TO REPRODUCE THIS COPYRIGHTED MATERIAL HAS BEEN GRANTED BY

Nancy Wrather

TO ERIC AND ORGANIZATIONS OPERATING UNDER AGREEMENTS WITH THE NATIONAL INSTITUTE OF EDUCATION. FURTHER REPRODUCTION OUTSIDE THE ERIC SYSTEM REQUIRES PERMISSION OF THE COPYRIGHT OWNER

ABSTRACT: Reported research in the area of verbal interaction has recognized a need for extending the investigation of communication behaviors beyond sentence boundaries. Many scholars have suggested including functional aspects of verbal interactions in description. To date, few studies have attempted to fulfill this need. The purpose of the present study was to synthesize a category system for observation of communicative functions in children's speech and to test that category system by recording observations of interactions within a first grade classroom. The observation system designed attempts to account for all factors of a communication situation and to outline detailed functions of verbal behavior. Five primary functional categories were developed and three levels of functional analysis were employed; one with regard to the interaction as a whole, one with regard to an utterance's purpose within the situation and one with regard to the speaker's culturally defined realization of the utterance. Once completed, the system was employed to observe ten hours of naturally-occuring communications in a first grade classroom. From these observations, five communication situations were selected and described in detail. The most important finding of the present study was that this system of observation produced rich and relevant data with regard to communication interactions. Teacher-student interactions proved quite different from Peer interactions. A functional system does not need to assume that an utterance serves only one function or works at only one system level. Furthermore, a functional system can account for culturally defined realizations of utterances.

CS501580

DESCRIBING COMMUNICATIVE FUNCTIONS IN A FIRST GRADE CLASSROOM

Researchers in verbal interaction often look primarily at sentences and smaller units. However, there have been numerous suggestions regarding extension of the scope of investigation of language behavior beyond linguistic rules to communication rules (Hymes, 1969; Labov, 1970). One area currently being investigated is purpose expressed in verbal interaction, often referred to as communicative function. Most scholars seem to agree that language is used to accomplish goals relevant to speaker needs, and that there are some fundamental goals or purposes which any speaker achieves through verbal interaction (Halliday, 1973).

In order to take purpose or function of communication into account, researchers must relate language to communication situations. In other words, contexts of utterances need to be considered (Wells, 1973). Hymes (1969) calls such descriptions communicative competence, intending a linguistic analogy. Ervin-Tripp (1975) suggests examining the text of communication events produced by children and searching for patterns within those events. That is the goal of most rhetorical schemes relating to communicative functions.

The research reported in this paper undertook to synthesize a category system for observation of communicative functions in children's speech and to test that category system by recording observations of interaction within a first grade classroom.

SOME APPROACHES TO FUNCTIONAL CLASSIFICATION

It seems unnecessary either to argue in detail for the usefulness of a functional approach, or to define precisely what one is. Such definitions and arguments exist in almost all of the studies to be reviewed in this section. The emphasis here is upon the classifications of functional communication behaviors offered by various theorists.

Jakobson (1960) proposed an early classification system of communicative functions. He outlined six component factors existing in any communication event: addresser, message, addressee, channel, context and code. Concentration upon each of these factors results in a different function of communication. Listed in the same order as the factor they concern, the six functions outlined are called: emotive, poetic, conative, phatic, referential and metalinguistic. Furthermore, Jakobson claims each utterance serves predominately one function.

Hymes (1962) took issue with some aspects of Jakobson's classification system. Hymes argued that even though an utterance may focus on one feature, it may not serve the function associated with the feature. He proposed considering "types of functions" instead of lists of functions, thereby attempting to explain the apparent empirical fact that one utterance may serve multiple functions. However, the "types of functions" Hymes suggests correspond almost exactly to Jakobson's list of functions, and similar problems are encountered since the types of functions he suggests are not centered around situations, but around elements of speaker-listener events. Hymes does state that communication functions must be defined in contexts of use and in "Sociolinguistics and the Ethnography of Speaking" (1969), he claims that there is a system of functions and that each speaker of the language has a structured knowledge of kinds and occasions of communication events. Furthermore, this structured knowledge is related to the culture of the speaker. Each speaker learns a culture's rules just as he or she learns the rules of a language.

In his study of a child from six to eighteen months, Halliday (1973) argues for functions based on situation and involving purpose. He proposed seven functions: instrumental, regulatory, interactional, personal, imaginative, heuristic, and informative. These functions unlike Jakobson's or Hymes' functions, are based on a goal or purpose within a context:

1.) instrumental: to satisfy a personal need
2.) regulatory: to direct or control another's behavior
3.) interactional; to interact with others
4.) personal: to express personal feelings

5.) imaginative: to create an environment
6.) heuristic: to request information
7.) informative: to exchange information

The SCA Task Force for Speech Communication Competencies K-12 (1976) proposes communication functions similar to Halliday's:

1.) controlling -- including Halliday's instramental and regulatory functions
2.) ritualizing -- including Halliday's interactional function
3.) feeling -- including Halliday's personal function
4.) informing -- including Halliday's heuristic and informative functions
5.) imagining -- including Halliday's imaginative function

In addition to listing these, the Speech Communication Association Task Force suggests two levels of analysis. The argument is that several types of verbal behavior may appear within each communication function. For example, the imagining function could be actualized by verbal behavior classified as role playing, fantasizing, speculating, dramatizing, theorizing or storytelling. These more specific descriptions appear to be culturally defined categories of behavior appropriate for accomplishing a purpose.

Wells (1973) takes the level of analysis method for classifying speech events a step further by proposing four levels of analysis: "Sequence", "Sub-sequence", "Function", and "Mood". A Sequence is defined as a section of conversation or a series of utterances having unitary topic and purpose, and should be considered as a whole. Sequence is a characterization of an entire time-bound situation -- a set of ordered events considered by the participants to be a unified strip of activity. Wells lists six "Modes of Sequence": control, expressive, representational, social, tutorial, and imaginative. Each mode is concerned with the purpose of the sequence and the reader will note that these are communication functions as defined by Halliday and SCA. Sub-sequences are smaller units of conversation contained in each Sequence. Sub-sequence Modes are identical to Sequence Modes except for one addition, procedural. Wells' distinction between Sequence and Sub-sequence is not entirely clear, for if a Sequence has a unitary topic and purpose, each Sub-sequence within a Sequence could be considered a Sequence in its own right.

The problem of distinguishing Sequences and Sub-sequences may only exist for an observer, not for participants in an activity. Goffman (1974) suggests that parties to a strip of interactive activity ordinarily agree upon the temporal-spatial boundaries of the strip. That suggests an intuitive construction in the mind of the speaker-listener (an aspect of communicative competence learned from cultural norms, etc.) of the boundaries of a communication situation. Within those boundaries, a speaker-listener attributes predominant motives to participants in the situation and indirectly attributes a dominant functional characterization to the situation. It is at least clear that an observer can do that. One kind of operationalization of Sequence then might be an observer's perception of the predominant functional purpose served by a bounded strip of activity (situation).

Wells' third level of analysis describes culturally understood tactics used within individual utterances. (Wells calls this descriptive category "Function", which becomes rather confusing given the multiple uses to which this term is put in this report.) Within a culture and an individual utterance, Wells uses terms quite similar to those used by the SCA Task Force to describe types of verbal behavior occuring within a purpose-function category. Wells provides detailed lists of such behaviors, and many of his terms will be introduced subsequently.

Wells' final level of analysis is called "Mood". This level considers linguistic properties or form of an utterance. There is not necessarily one to one correspondence between function and form.

Each of Wells' first three levels of analysis considers purposes or objectives of utterances or situations, but this framework still fails to deal with non-task factors of the communication situation. Some recent literature takes into account other factors

of the communication event aside from objective. Cazden (1970) suggests that researchers should examine the social context of speech; in other words, the various factors that enter into a speaker's perception of a situation. Wood (1976) and Rodnick and Wood (1973) suggest that a communication situation is made up of four factors: Topic, the content or referent of communication; Task, the objective or purpose of communication; Participants, the persons engaged in the communication situation; and Setting, the time and place of the communication event. Hopper and Naremore (1973) suggest one additional factor in the communication situation; what came before. However, if the analysis of topic suggested by Keenan and Schieffelin (1976) is used, there is no need to include this additional category.

The last four studies cited take into account all factors of the communication situation, but do not outline a detailed method for classifying functions (task). The studies cited previously outline ways for classifying functions, but do not take into account all the variables of the communication situation. The present research attempts to synthesize a system which would account for all factors of a communication situation and outline in detail functions of verbal behavior. Scholars have repeatedly called for this kind of system, but there has been to date a shortage of volunteers to develop and employ such a system. This writer discovered some of the reasons for this--it's difficult, detailed and painstaking work. But it may be worth the cost.

To summarize, there now appears to be a sufficient theory base for constructing a rudimentary descriptive system for communication situations. It would be necessary to describe the following in any communication event:

A.) the setting or time and place of the interaction
B.) the participants in the interaction
C.) the content or topic of communication
D.) the function or purposes or tasks of the communication

The last of these categories, function, serves as the heart of the description. There appears to be at least five primary functional categories:

1.) Controlling: communicative behavior whose purpose is to control or direct the behavior of others
2.) Feeling: communicative behavior with the purpose of expressing emotions or feelings
3.) Informing: communicative behavior used for exchanging information
4.) Ritualizing: communicative behavior whose purpose is to interact or maintain relationships with an individual or within a group
5.) Imagining: communicative behavior used to create an environment which casts participants into an imaginary situation.

It appears that a given utterance may serve more than one function. The function which an observer attributes to an utterance may vary according to the level of analysis. For example, the statement "Are you going to take out the garbage?" appears to be a request for information, but in the United States middle class, it probably constitutes an attempt to control. Therefore, observers need to differentiate multiple levels of analysis for functions. A good guess is that there are three basic levels of analysis for functions which are:

a.) Functional Level A: The function or purpose of the situation or conversation as an entire unit, i.e., viewed as a whole and based on the four factors which make up a communication situation.
b.) Functional Level B: The function or purpose of the utterance with regard to the situation or context in which it occurs (which is Level A).

c.) Functional Level C: The function or purpose of the utterance with regard to the speaker. This includes the set of culturally defined alternatives that make up the structures of knowledge or communication competence that all speakers of a culture possess (Hymes, 1969).

The remainder of this paper reports how such a descriptive scheme was operationalized, and what was discovered when interactions within a first grade classroom were described.

METHOD

Naturally occurring sentences and conversations (insofar as such are obtainable when observed (Garfinkel, 1967; Sanches, 1975) appear to provide the most productive potential data sources. Given this predisposition, a real, ongoing first-grade classroom in a parochial school in Austin, Texas was selected as the setting to be observed. Ten hours of interaction were observed by the researcher and tape recorded for subsequent analysis. Observations occurred during the first week of March, 1976. Since setting was constant during observations, there are few notations about it in the descriptions, although time (in seconds) was noted.

Participants were thirty-one first graders, their teacher and a teacher's aide. Participants were identified as individuals for each interaction sequence. Students were described by the teacher as being from varied religious, social, and racial backgrounds. It was anticipated that peer interaction would be somewhat different from interaction between teachers and students, and a number of instances of each were recorded.

The topic for each interaction was determined using procedures similar to those outlined by Keenan and Schieffelin (1976) and was noted on the observation sheet.

The task or function of the interaction was described on the three levels outlined above. Functional Level A: This level of analysis describes the purpose of the interaction when viewed as a whole (Wells, 1973). It is based not only on the utterances and nonverbal behaviors which occurred, but also on the topic, setting and participants of the interaction. It was described using one of the five primary functional categories specified above. Functional Level B: This level of analysis describes the utterance with regard to the situation or the interaction as a whole. In other words, this level of analysis answers the question, "What role does this utterance play within the interaction?" In this level of analysis utterances were categorized in one or two of the six primary functional categories outlined above. In other words, one utterance may serve more than one function. When this occurred, a judgment was made as to the dominant or primary function and the subordinant function. The dominant function was recorded first and the subordinant function underneath. As is obvious, the five primary functional categories are used for both Functional Level A and Functional Level B. These two levels using the same descriptors seemed necessary because utterances which clearly served one function were equally clearly used as parts of larger strategies belonging to another function. For example, a teacher may ask: "What can you do to be quiet in the cafeteria?" The function of the utterance is informative. The teacher is asking for information. In all probability, however, this utterance occurs in a controlling sequence designed to maintain lunchroom decorum. Functional Level C: The final level of analysis has to do with the function or purpose of the utterance with regard to the speaker's rhetorical options. This level addresses the question "In what culturally defined manner does the speaker realize the purposes of the utterance?" For this level of analysis, it is assumed that the speaker has some structured knowledge about communication interactions and that the speaker draws on these structures when engaged in interaction (Hymes, 1969). Appropriate or inappropriate realization of the purpose of the speaker's utterance is directly related to such communication competence. Within each of the functional categories of Functional Level B, there are numerous strategies to choose from. For example, an utterance in the controlling category of Functional Level B may be realized as a commanding,

requesting, threatening, warning, etc. utterance on Functional Level C. The categories for Functional Level C used in this research were derived mostly from the lists of verbal behaviors outlined by the SCA Task Force (1976) but also drew from the functional lists of Wells (1973). The following listing may be helpful in clarifying this concept:

Functional Level B: Controlling

Functional Level C:

commanding	requesting	asking for a commitment
threatening	warning	permitting
persuading	arguing	contracting
suggesting	refusing	promising
evading	advising	etc.

Functional Level B: Feeling

Functional Level C:

exclaiming	taunting	expressing an attitude
bragging	accusing	expressing a state
approving	congratulating	etc.

Functional Level B: Informing

Functional Level C:

answering	acknowledging	stating information
naming	demonstrating	requesting information
explaining	justifying	etc.

Functional Level B: Ritualizing

Functional Level C:

greeting	taking leave	participating in verbal games
reciting	taking turns	etc.

Functional Level B: Imagining

Functional Level C:

fantasizing	speculating	dramatizing
theorizing	storytelling	etc.

The data sheet used in observing was designed to include all of the above information. In addition, pauses within utterances were noted by (....) and emphasized words were underlined. Relevant nonverbal behaviors were also noted as these seemed important to the observer.

RESULTS

It was anticipated that the data describing these observations would be somewhat ponderous. It proved to be. The ten hours of observations yielded fifty-three pages of handwritten transcript and two hundred thirty-three pages of description sheets. There were several criteria used for editing the data. First, an interaction had to be both observed at the time of occurrence and audible on tape. If an interaction was audible on tape and not observed, it was discarded. If an interaction was observed but inaudible, it was discarded. Second, any interaction involving the experimenter was discarded. Finally, interactions involving only nonverbal behavior (for example; a student hitting a peer and receiving a disapproving look from the teacher) were discarded. In spite of these editing criteria, eighty-seven pages of data remained to be analyzed.

One result of editing was that the remaining data could easily be broken into twenty-three temporal fragments, none of which were longer than sixteen minutes and twenty-three seconds and the shortest of which was only seven seconds. It quickly became apparent that each of the fragments tended to revolve around some predominant functional purpose. Thus, the assumption that, in this setting at least, not only utterances, but entire communicative interactions may be assigned to a function, seems to be supported.

As anticipated, peer interactions proved quite different from teacher-student interactions. The major difference seemed to be that teacher-student interactions had a distinct superior-subordinate flavor, and an emphasis upon "controlling" function interactions. Peer interactions were more equalitarian and somewhat less controlling. There was a greater probability of imagining and feeling interactions in peer conversations.

The above conclusions are based upon informal summaries of the data which are still too rough to present in numerical form. It may, however, be informative to look in some detail at five fragment-events to give the reader a "feel" for the kind of interactions which were observed and for the kinds of decisions which the researcher made in describing interactions. Of the twenty-three fragments obtained, seven were less than one minute and will not be reported in this study. Two fragments involved the "once-a-week" Spanish Teacher and are not considered in this analysis. Six fragments involved similar (redundant of each other) teacher-student interactions and two, one involving the teacher and the class, and one involving the teacher's aide and the class, were selected as most representational of this set. The eight remaining fragments involved peer interactions. Three were selected to be reported here on the basis that these seemed most typical and interesting of observed interactions.

Teacher-Student Interactions

All observed teacher-student interactions had a superior-subordinate flavor. Both of those detailed here took place within the classroom, with the class sitting in a circle and listening to the teacher or aide. Both teacher-student interactions were controlling situations, i.e., the teacher or aide attempting to control the behavior of the students. The most frequent function of teacher's or aide's utterances (Functional Level B) was also controlling, ordinarily being realized (Functional Level C) as commanding or advising. The most frequent function of student's utterances (Functional Level B) was informing, usually being realized (Functional Level C) as statements of information.

The Bell Scene: On the following pages are the data for the teacher-student interaction involving the teacher's aide:

THE BELL SCENE

Functional Level A: Controlling
Type of Interaction: teacher-student
Topic: getting in a circle/pushing in chairs

TIME	SPEAKER/ADDRESSEE UTTERANCE/NONVERBAL NOTES	FUNCTIONAL LEVEL B	FUNCTIONAL LEVEL C
0 sec.	Aide rings bell	controlling	commanding
:04	students cease activity and talking	controlling	following a command
:07	Aide to class: "I think it's time for us to get on our rug."	controlling	commanding
:10-:56	students finishing what they were doing and assembling in a circle	controlling	following a command

TIME	SPEAKER/ADDRESSEE UTTERANCE/NONVERBAL NOTES	FUNCTIONAL LEVEL B	FUNCTIONAL LEVEL C
:58	Aide to Ken: "Excuse me, Ken." Eye contact is established.	controlling	commanding
:59	Ken ceases activity and talking and takes a seat in the circle.	controlling	following a command
1:03	Aide to small group of students still not in circle: "Come on. Get over here fast, please."	controlling	commanding
1:08	The group of students join the circle.	controlling	following a command
1:17	Four students are standing in the center of the circle. Aide to circle: "I see four people who can't find a space. Can you help them?"	controlling informing	commanding stating information
1:19	Michelle to circle: "There's one over there."	informing	stating information
1:21	Aide to Michelle and circle: "Without talking, will you help..."	controlling	commanding
1:35	Aide to four students still standing in the middle of the circle: "There's a space right there (points to a space). There's a space over there next to Michelle. There's a space...right...uh...here."	controlling informing	commanding stating information
1:49	Students in the center take a seat in the circle.	controlling	following a command
1:55	Aide to class: "O.K. now...This is where... the...markers come in handy." (Each student has a name card next to the material he/she was working with.)	controlling	threatening
2:01	Aide to Carlos and Kenneth: "Carlos, Kenneth White...Your Chairs." (while walking in room.)	controlling	commanding
2:05	Carlos and Kenneth go push in their chairs and return to the circle.	controlling	following a command
2:08	Aide to students: "Kelvin, Michelle, Stewart, Gilbert, Debbie and Kim."	controlling	commanding
2:10	The named students go push in their chairs and return to the circle.	controlling	following a command
2:27	Aide to students: "name-___, Greg, Jennifer Michelle G., Anthony, Patrick."	controlling	commanding
2:35	Aide says something inaudible		
2:40	Aide to class: "O.K., now here are a few books that...somebody...put down, so I'll take these and put them up for you."	controlling	warning

TIME	SPEAKER/ADDRESSEE UTTERANCE/NONVERBAL NOTES	FUNCTIONAL LEVEL B	FUNCTIONAL LEVEL C
3:04	Aide in walking around classroom passes the "village" Aide to class: "Let's try and not work near the little village, O.K.?"	controlling	suggesting
3:07	Aide to Ken S.: "Ken S_____."	controlling	commanding
3:09	Ken S. to Aide: "What?"	informing	acknowledging
3:12	Aide to Ken S.: "Is that yours or is this yours?" (referring to two chairs, one is pushed in, one is pulled out.)	informing	requesting information
3:14	Chris to Aide: "No, that other seat's his."	informing	answering
3:15	Aide to Paul: "O.K....Paul"	controlling	commanding
3:15	Paul shakes his head "no" to Aide.	informing	"stating" information
3:16	Aide to Michelle: "Michelle?"	informing	requesting information
3:17	Aide to Michelle: "Let's go."	controlling	commanding
3:18	Michelle is sitting in circle - not responding. (There are two Michelle's in the class.)		
3:19	Aide to Michelle: "Michelle Fr_____." Eye contact is established.	controlling	calling
3:22	Aide to Michelle: "Is this yours, Michelle Fr_____?" (Aide is still standing by pulled out chair.)	informing	requesting information
3:26	Michelle shakes her head "no" to Aide	informing	"stating" information
3:28	Aide to class: "Who was setting there?" (Aide is still standing by chair.)	informing	requesting information
3:31	Aide to Paul: "Paul?"	informing	requesting information
3:33	Paul to Aide: "I wasn't over there."	informing	stating information
3:36	Paul to Aide: "I think Ken S____ was."	feeling	blaming
3:40	Ken S. to Aide: "No. I know what was my place."	informing	stating information
3:49	Aide to Ken and Paul: "O.K. both Paul and Ken, I think you were having a little... bit of trouble, so why don't you both do it."	controlling	commanding
3:58	Ken and Paul remain seated.	feeling	expressing an attitude
4:15	Aide walks near the circle. Aide to Paul and Ken: "O.K."	controlling	commanding

TIME	SPEAKER/ADDRESSEE UTTERANCE/NONVERBAL NOTES	FUNCTIONAL LEVEL B	FUNCTIONAL LEVEL C
4:18	Ken and Paul leave circle and walk toward chair. Paul pushes chair in. Both return to circle.	controlling	following a command
4:20	End of Interaction. Aide begins talking to circle.		

As described, the sound of a bell began the interaction. In the class, on the teacher's desk, is a small silver-colored bell similar to bells one finds on counters next to signs that read "ring for service". The bell is only rung by the teacher or aide. Once the bell is rung, activity in the classroom ceases and students stop talking and look at the teacher or aide. The teacher or aide then makes some utterance, usually a command. When questioned, the teacher and aide both explained that the ringing of the bell took the place of having to verbally get the attention of the class. They both agreed that the sound of the bell meant stop what you're doing, stop talking and look at the teacher or aide. Two students were questioned as to the meaning of the sound of the bell. They both said that the sound of the bell meant "Freeze". Based on the work of Halliday (1973) who studied the language patterns of a child from six to eighteen months and found the child's language to contain only content (meaning) and expression (form), this nonverbal behavior was considered as language containing only content and expression: The expression (form) was the sound of the bell and the content (meaning) was "Freeze". This nonverbal behavior was categorized as controlling behavior (Functional Level B) and realized as a command (Functional Level C).

The fifth notation of the interaction, the "Excuse me, (Ken)," utterance, is representational of many utterances made by the teacher or aide in similar situations, i.e., following a bell ring, and addressed to some particular student (the student is usually named). The addressed student usually had not obeyed the command of the bell. Following the utterance, eye contact was established between the teacher or aide and the named student. The student would then either willing cease work or interaction, be reminded that the bell had rung or be given a command regarding his/her behavior (example: "Would you please join the circle?" or "Come on."). When questioned about this behavior, the teacher claimed it was only a polite way of setting an example for the particular student on the appropriate way to behave. The effect, however, was that the named student would cease talking or activity and look at the teacher or aide and comply with the either spoken or unspoken command. The teacher's or aide's utterances of this type were categorized as controlling (Functional Level B) and realized in the form of a command (Functional Level C).

The Voting Scene: On the following pages are the data for the teacher-student interaction involving the teacher.

THE VOTING SCENE

Functional Level A: Controlling
Type of Interaction: Teacher-Student
Topic: Playground Rules

TIME	SPEAKER/ADDRESSEE UTTERANCE/NONVERBAL NOTES	FUNCTIONAL LEVEL B	FUNCTIONAL LEVEL C
0 sec.	Class is sitting in a circle on the floor. Teacher to circle: "Do you know what I noticed when I was outside?"	informing	requesting information

TIME	SPEAKER/ADDRESSEE UTTERANCE/NONVERBAL NOTES	FUNCTIONAL LEVEL B	FUNCTIONAL LEVEL C
:04	Teacher to class: "Some...a few little children had said, 'Mrs. B___, I don't have anybody to play with'."	feeling controlling	expressing an attitude warning
:09	Teacher to class: "So and So won't let me and then I saw other people being mean to each other."	feeling controlling	expressing an attitude warning
:15	A student ways something inaudible.		
:18	Teacher to class and to that student: "Not just to those two girls but to every....to everybody....body."	feeling controlling	expressing an attitude warning
:20	Teacher to class: "...didn't seem to be very happy playing today."	controlling	warning
:28	Teacher to class: "What did we talk about what we were going to do when we're outside playing?"	controlling informing	warning requesting information
:34	Teacher to Patrick: "Patrick."	controlling	permitting
:36	Patrick to Teacher and class: "We were ...we had to...uh...make friends with each other. We had to let them play and everything."	informing	stating information
:40	Teacher to Patrick and class: "Right, let anybody play who wants to."	controlling	stating a rule
:45	Teacher to class: "How many children think that's a good idea?"	controlling	asking for a commitment
:46	Many students raise their hand.	controlling	giving a commitment
:47	Teacher to class: "Well good, now everybody thinks so."	controlling	stating a rule
:50	Teacher to class: "Well, I think that's a good idea, too."	feeling controlling	expressing an attitude commanding
:51	Teacher to class: "Because you wouldn't like to be the one...the little person who they wouldn't let play, would you?"	controlling	warning
1:08	Teacher to class: "Also, the accidental punchings and hitting people in the eye and kicking people on accident or putting some of that itchy...itching powder in their shirt by accident."	controlling	commanding warning
1:17	Several students make statements at once - inaudible. From memory: explanatory and accusing statements.		

TIME	SPEAKER/ADDRESSEE UTTERANCE/NONVERBAL NOTES	FUNCTIONAL LEVEL B	FUNCTIONAL LEVEL C
1:27	Teacher to class: "Well, let's say from now on the itching powder needs to be off limits."	controlling	commanding
1:34	Girl to Teacher: "But the...But the..." No eye contact between girl and teacher.	feeling	accusing -- incomplete
1:35	Teacher to class: "...To people's hands."	controlling	commanding
1:38	Girl (same as above) to Teacher: "But...but..."	feeling	accusing -- incomplete
1:39	Teacher to class: "How many children think that's a good idea?"	controlling	persuading
1:41	A few students raise their hands.	feeling	expressing an attitude
1:41	Same girl to Teacher: "But the kindergarten doesn't know because he's the one...the kindergartens is the one..."	feeling	accusing
1:43	Teacher to girl and to class: "O.K., well, I'll talk to the kindergarten... I'll talk to Mrs. A_____."	informing	stating information
1:45	Teacher to class: "But how many first graders think that we'll just leave the itching powder alone for the rest of the year?"	controlling	asking for a commitment
1:47	Most students raise their hands.	controlling	giving a commitment
1:49	Teacher to class: "O.K., good, I think that's a majority rule."	controlling	stating a rule
1:52	Boy to Teacher: "I think...But everybody."	feeling	accusing - incomplete
1:55	Teacher to class: "So that's a new playground rule to not pick up with your hands any of that itchy...itching powder."	controlling	stating a rule
2:03	Girl to Teacher: "What happens if you forget?"	controlling	contracting
2:05	Teacher to Girl: "What happens if you forget any rule?"	controlling	threatening
2:08	Boy to Teacher: "Well then a lot of those little round balls got into the..."	feeling	accusing - incomplete
2:10	Teacher to girl: "You'll just have to take time and think about it, right?"	controlling	commanding
2:12	End of interaction - Teacher begins a new topic.	controlling	commanding

The eleventh notation of this interaction begins an example of a tactic used often by the teacher in similar situations. It was observed six times by this writer--twice in this interaction. It usually began by a statement of belief or an expression of an idea by the teacher, followed by a request for a vote. Students then raised their hands in agreement. Very few students (at the most five or six) failed to raise their hands. The tactic is completed when the teacher makes a statement involving a rule. The rule-statement may involve the words "That's a majority rule", but doesn't always involve those words. It is implied that a student will comply with the rule since the majority of the class agreed by voting. The request for a vote was classified as controlling on Functional Level B and asking for commitment on Functional Level C.

Peer Interactions

Three peer interactions were chosen for this report: one feeling interaction, one imagining interaction and one controlling interaction. All took place within the classroom, at study tables, and while students were doing independent work.

Feeling Interaction: This interaction involved four participants, two boys and two girls. The interaction involved making comparisons about the progress of each participant's work. On the following pages are the data for the Feeling Interaction.

THE FEELING INTERACTION

Functional Level A: Feeling Topic: Lesson Number Type of Interaction: Peer

TIME	SPEAKER/ADDRESSEE UTTERANCE/NONVERBAL NOTES	FUNCTIONAL LEVEL B	FUNCTIONAL LEVEL C
0 sec.	Paul to group: "I'm past everybody."	feeling	bragging
:02	Ken to Paul: "No you're not...You're not past me. I'm on twenty gold."	feeling informing	bragging stating information
:05	Paul to Ken: "I know but...I know but... You know what?"	informing	requesting information
:08	Ken to Paul: "Hmmm?"	informing	requesting information
:10	Paul to Ken: "I'm past everybody in the fruitloops. The fruit loops just started on one...so I'm on...so I'm on seventeen."	feeling informing	bragging justifying
:20	Ken to Paul: "I know." Ken giggles.	feeling	expressing a state
:22-:34	Pause		
:35	Ken to Amber: "Aw, you're not even started on this one...yet."	feeling	taunting
:39	Amber to Ken: "So - I don't want to be started on it."	feeling	expressing an attitude
:41	Girl to Amber: "If you start on it, well, you'll be the last one to start."	feeling	taunting
:45	Ken to Girl: "Naw...she'll be the last one to finish."	feeling	taunting

TIME	SPEAKER/ADDRESSEE UTTERANCE/NONVERBAL NOTES	FUNCTIONAL LEVEL B	FUNCTIONAL LEVEL C
:50	Ken to Girl: "That way she won't be able to know how to read...as good as us."	feeling	taunting bragging
:55	Paul to Ken: "I'm past everybody in the fruitloops."	feeling	bragging
:57	Ken to Paul: "...not past me."	feeling	bragging
:58	Paul to Ken: "But I'm past everybody in the fruit....right!"	feeling	bragging
1:00	Ken to Paul: "I <u>am</u> in the fruitloops."	controlling	arguing
1:01	Girl to Ken: "Naw-uh...you're in the bananas."	controlling	arguing
1:02-1:38	Pause		
1:39	Girl to group: "Goody, I'm on seventeen goldy."	feeling	bragging
1:41-2:06	Pause		
2:07	Girl to group: "I'm on seventeen gold."	feeling	bragging
2:13	Girl to Ken: "Look, look...see?"	controlling	commanding
2:15	Girl to Ken: "Seventeen Gold."	feeling	bragging
2:20	Paul to group: "I started before every-body...in the..."	feeling	bragging
2:23	Paul to group: "I started before all the fruitloops."	feeling	bragging
2:25	Ken to Paul: "You didn't start before me....son."	feeling	bragging taunting
2:30	Girl to Ken: "Yes, but that ain't <u>good</u>."	feeling	taunting
2:32	Ken to Girl: "Yes it is too good."	feeling	expressing an attitude
2:36	Paul to group: "I got three more."	feeling	bragging
2:39	End of Interaction.		

It can be seen from the data that the most frequent classification of utterances on Functional Level B was feeling. The majority of utterances within this category were realized as bragging or taunting (Functional Level C). Occasionally, within this interaction, utterances served two purposes on Functional Level B. Both were noted on the data sheet, and the realization of each (Functional Level C) was noted.

Imagining Interaction: The imagining interaction involved five participants, all boys. The situation began by discussing the previous evening's television episode of Steve Austin, the bionic man, but quickly developed into a discussion of the possible capabilities and escapades of Steve Austin. On the following pages are the data for the Imagining Interaction.

THE IMAGINING INTERACTION

Functional Level A: Imagining
Type of Interaction: Peer

Topic: Steve Austin, the bionic man

TIME	SPEAKER/ADDRESSEE UTTERANCE/NONVERBAL NOTES	FUNCTIONAL LEVEL B	FUNCTIONAL LEVEL C
0 sec.	Chris to Ken: "Ken..uh...did you see Steve Austin?"	informing	requesting information
:02	Ken to Chris: "Yeah, I know."	informing	acknowledging
:05	Ken to Chris: "That was the show when he first got bionic."	informing	stating information
:06	Chris to Ken: "Yeah, bionic."	informing	stating information
:08	Ken to Chris: "When he first got bionic."	informing	stating information
:10	Chris to Ken: "But he didn't..uh..when he wasn't on the plane he didn't have bionics.	informing imagining	stating information storytelling
:14	Ken to Chris: "Yeah, I know."	informing	acknowledging
:16	Ken to Chris: "You mean when he was on the plane he didn't have bionics."	informing imagining	stating information storytelling
:18	Chris to Ken: "I know...then he fell off it."	informing imagining	stating information storytelling
:21	Ken to Chris: "Nah-uh...when he fell off he still didn't have bionics."	informing imagining	stating information storytelling
:23	Chris to Ken: "I know."	informing	acknowledging
:25	Ken to Chris: "But as soon as he went into surgery, he did."	informing imagining	stating information storytelling
:28	Chris to Ken: "Oh."	informing	acknowledging
:31	Chris to Ken: "He didn't like it."	imagining	storytelling
:32	Ken to Chris: "I know he didn't."	informing	acknowledging
:33	Ken to Chris: "And remember when that lady...when the wires came sticking out of Steve Austin's arm and then...and then she...she said 'Who are you?'"	imagining	storytelling
:36	Ken to Chris: "Oh, I know. She said, what are you?"	imagining	storytelling

TIME	SPEAKER/ADDRESSEE UTTERANCE/NONVERBAL NOTES	FUNCTIONAL LEVEL B	FUNCTIONAL LEVEL C
:39	Chris to Ken: "No...she said 'What are you?'"	imagining	storytelling
:44	Chris to Ken: "No...she said..."	imagining	storytelling
:47	Chris to Ken: "Oh yeah, you're right... what are you."	informing imagining	acknowledging storytelling
:50	Ken to Chris: "The Six Million Dollar Man was a special."	informing	stating information
:50-1:24	Pause. Phillip joins group.		
1:25	Chris to group: "The Six Million Dollar Man is right there." Chris points to Ken.	imagining	fantasizing
1:31	Paul to group: "Who saw Six Million Dollar Man last night, raise your hands."	ritualizing	participation in a verbal routine
1:36	Phillip to group: "No, I didn't."	informing	stating information
1:39	Chris to group: "I didn't either."	informing	stating information
1:40	Chris to group: "It was when he first got his bionics, I think."	informing	stating information
1:43	Paul to Chris: "Yeah, when he got his bionic eye, they screwed his eye in."	imagining	storytelling
1:45	Chris to Paul: "I know."	informing	acknowledging
1:46	Chris to Paul: "He didn't like it."	imagining	storytelling
1:46	Ken to group: "I think he...I think he..."	imagining	storytelling
1:47	Paul to Ken: "The only thing he didn't like is his arm."	imagining	storytelling
1:50	Ken to group: "I think he...I think he got in prison."	imagining	storytelling
1:51	Chris to group: "He did."	imagining	storytelling
1:51	Phillip to group: "No...No..."	controlling	arguing
1:52	Chris to group: "I know he did."	controlling imagining	arguing storytelling
1:53	Phillip to Chris: "Who?...The Six Million Dollar Man?"	controlling	arguing
1:55	Chris to Phillip: "Yes."	controlling	arguing
1:57	Phillip to Chris: "No he didn't."	controlling	arguing
1:59	Ken to Phillip: "He did so get in prison."	controlling	arguing

TIME	SPEAKER/ADDRESSEE UTTERANCE/NONVERBAL NOTES	FUNCTIONAL LEVEL B	FUNCTIONAL LEVEL C
2:01	Chris to Phillip: "Uh-huh."	controlling	arguing
2:02	Chris to group: "And he had to use his bionics to get out."	imagining	storytelling
2:07	Ken to Chris: "I know...remember when he went 'krrrrr' when he went....." Ken is twisting his pencil. Phillip walks away.	imagining	storytelling
2:10	Paul to Ken: "Oh yeah, to the bars."	imagining	storytelling
2:11	Ken to Chris: "To get the chain out."	imagining	storytelling
2:12	Paul to Ken: "To get the chain out."	imagining	storytelling
2:15	Ken to group: "...and then he..."	imagining	storytelling
2:16	Chris to Ken: "And then he tapped the door open."	imagining	storytelling
2:19	Ken to group: "And then he kicked it open, the door."	imagining	storytelling
2:23	Paul to group: "I bet that was when he just got his bionics."	imagining	fantasizing
2:24	Ken to group: "He got the other person through."	imagining	storytelling
2:25	Paul to group: "They shot him. They shot him."	imagining	storytelling
2:26	End of Interaction.		

Both the teacher and aide listened to this tape. The teacher believed the purpose of the conversation was informing (Functional Level A) with most utterances with regard to the situation having the purpose of informing (Functional Level B). She did state that some utterances with regard to the conversation were imagining utterances (Functional Level B). She based this decision on the belief that most participants had watched the previous evenings episode. The aide, on the other hand, believed that the purpose of the conversation was imagining (Functional Level A) and the purpose of most utterances with regard to the conversation were imagining (Functional Level B). She based her belief on the fact that most utterances were realized as storytelling utterances (Functional Level C), that the participants were "telling the story in their own words", and that participants often related flights of fancy regarding Steve Austin's capabilities. She also inferred from some utterances on the tape that all participants had not watched the previous evening's episode. One participant was questioned about the purpose of his utterances, but did not provide useful data.

Based upon the above, the researcher classified the purpose of the interaction as imagining (Functional Level A). Most utterances with regard to the interaction were classified as imagining (Functional Level B) and were realized as storytelling with regard to the individual speakers (Functional Level C). Again, in this interaction, some utterances served two functions on Functional Level B. Both were noted and the realization of both (Functional Level C) were also noted.

Several utterances in this interaction were classified as controlling utterances with regard to the situation (Functional Level B) and were classified as arguing utterances with regard to the participants (Functional Level C). A participant who entered the interaction after it was underway, contradicted a storytelling statement. After a brief exchange of utterances, the participant withdrew from the conversation. One utterance in this interaction is classified as ritualizing with regard to the situation (Functional Level B) and was realized as a participation utterance with regard to the participant (Functional Level C). Both the teacher and aide agreed that he made the utterance because "he was trying to be in on it (the interaction)." This was his first utterance of the interaction and following this utterance, he made several other utterances about the topic.

Controlling Interaction: The controlling interaction had one primary participant, a boy, and several other participants who entered and withdrew from the interaction. The interaction revolved around a pair of scissors; the primary participant was attempting to locate his pair of scissors. On the following pages are the data for the Controlling Interaction.

THE CONTROLLING INTERACTION

Functional Level A: Controlling Topic: Chris' scissors Type of Interaction: Peer

TIME	SPEAKER/ADDRESSEE UTTERANCE/NONVERBAL NOTES	FUNCTIONAL LEVEL B	FUNCTIONAL LEVEL C
0 sec.	Chris to group at his table: "Who took 'em."	controlling	requesting
:03	Amber to Chris: "I didn't."	controlling	arguing
:05	Chris to Amber: "Let me see yours." Chris takes her scissors.	controlling	commanding
:07	Chris to Amber: "Where'd you get that?" Chris leaves table. Amber didn't answer.	controlling	commanding
:10-:52	Inaudible - Chris interacting with students at the next table.		
:53	Chris walks back to original table. Chris to group: "I did not have this one."	feeling informing	expressing a state stating information
:59	Chris to group: "I had a much much much much looser one."	feeling informing	expressing a state stating information
1:00	Chris to group: "And you all traded."	feeling	accusing
1:03	Girl 1 to Chris: "Uh-uh."	controlling	arguing
1:04	Chris to girl 1: "You all did trade."	feeling	accusing
1:05	Girl 1 to Chris: "Uh-uh."	controlling	arguing
1:07	Girl 1 to Chris: "Well I just got this one."	controlling	persuading
1:11	Chris to girl 1: "That is not yours."	feeling	accusing
1:12	Girl 1 to Chris: "Is that yours then?"	informing	requesting information
1:15	Chris to girl 1: "That is exactly.... Here is yours...Yours was like....."	feeling	expressing a state

TIME	SPEAKER/ADDRESSEE UTTERANCE/NONVERBAL NOTES	FUNCTIONAL LEVEL B	FUNCTIONAL LEVEL C
1:20- 1:33	Chris looks at scissors of girl. Chris walks to another table and interacts with students at that table. Inaudible.		
1:34	Chris walks back to original table. Chris to group: "Someone took them."	feeling	accusing
1:36	Chris to group: "I'll go tell."	controlling	threatening
1:39	Chris to group: "I know you took them."	feeling	accusing
1:40- 1:54	Chris takes a few steps away from the table. Is still accusing students at the table. Inaudible.		
1:55	Chris to group: "Oh, I get the game."	feeling	expressing an attitude
1:59	Chris to group: "You all switched from me to her...she gave...uh...you all gave her mine. She gave me hers and then she did that and then you gave her..."	feeling	accusing
2:03	Girl 2 to Chris: "Uh-uh".	controlling	arguing
2:04- 2:10	Girl 2 to Chris: Inaudible. From memory; arguing statements.		
2:10	Chris to Girl 2: "Now don't try to play that trick on me."	feeling controlling	accusing warning
2:11	Girl 2 to Chris: "We aren't."	controlling	arguing
2:12	Chris to Girl 2: "Yeah...I can tell that big fake...I can tell that look."	feeling	accusing
2:20- 2:59	Chris walks up to another table and interacts with students at that table. Inaudible.		
3:00	Chris walks back to table with a pair of scissors which are not his. He walks up to Amber. Chris to Amber: "Kill her." He almost jabs Amber with the scissors.	controlling	threatening
3:05	Chris throws the scissors on the table and walks away.	feeling	expressing a state
3:07	Experimenter ducks from the flying scissors and "rolls" her eyes.	feeling	expressing an attitude
3:09	Students at the table look at experimenter.	informing	acknowledging
3:10	Girl 3 to group: "Golly...Chris is..."	feeling	expressing an attitude
3:10	Chris is climbing into the coat closet and shutting the door.	feeling	expressing an attitude

TIME	SPEAKER/ADDRESSEE UTTERANCE/NONVERBAL NOTES	FUNCTIONAL LEVEL B	FUNCTIONAL LEVEL C
3:12	Girl 1 to group: "There goes Chris into the closet."	feeling	tattling
3:16	Girl 2 to teacher: "Chris went into the closet."	feeling	tattling
3:20	Girl 2 to teacher: "Chris went into the closet."	feeling	tattling
3:22	End of Interaction.		

Most of the utterances of the primary participant were classified as feeling with regard to the situation (Functional Level B) and were realized (Functional Level C) as accusing utterances. Most of the utterances made by the other participants were classified as controlling on Functional Level B and were realized with regard to the other participants as arguing utterances (Functional Level C).

The situation did not end successfully. The primary participant, unable to locate his scissors, threw a different pair of scissors on the table and walked away to hide in the closet. The unsuccessful resolution may be in part due to the fact that the utterances made by the primary participant were most frequently feeling utterances with regard to the situation, while the utterances made by the other participants were most frequently controlling utterances with regard to the situation.

DISCUSSION

The most important finding of this research is that the system of observation being tested did produce novel and interesting data and took into account several important aspects of communication interaction. It includes the four factors of a communication situation listed by Wood (1976). Furthermore, this system can be used in naturally occurring conversations, and utterances can be described with regard to purpose or function where functional levels do not have to correspond on a one to one basis and utterances can serve more than one function (Halliday, 1973). In this paper, grammatical form was not mentioned. However, form could be described in this system and, in fact, was noted by the experimenter during observations. Finally, this system describes when participants enter and leave interaction.

One of the most unique aspects of this system involves Functional Level C which describes utterances with regard to the speaker. This level of analysis allows an observer to describe the set of culturally defined alternatives which make up the structures of knowledge or communication competence that all speakers in a culture possess (Hymes, 1969). This level of analysis also allows experimenters to make judgments of appropriateness of utterances. In reviewing the literature in the area of communication functions, this writer was unable to find any scheme which systematically described this aspect of communication. Perhaps this is the area of interaction upon which educators should focus their attention. Instructional strategies could be developed which focus on a particular functional classification (Functional Level B), thereby allowing students an opportunity to develop, practice and obtain feedback about alternatives for a particular communication situation (i.e., allowing students to become better message strategists). There were no observed teacher-student or peer interactions which involved instructional strategies and did not focus on controlling. Perhaps, these did occur and were unobserved. But if controlling behaviors are practiced more than interactive behaviors involving other functions, this may constitute an undesirable state of affairs. The reader will recognize that last statement as controlling. Frameworks change slowly.

This system does not take into account the overall "plans" of participants (Wells, 1973), nor does it take into account the fundamental goals that any speaker achieves through language usage (Halliday, 1973). But it does represent one way of beginning to make observations which is in line with an important line of theoretical speculation.

REFERENCES

Cazden, C. "The Neglected Situation in Child Language Research and Education." In F. Williams (Ed.), Language and Poverty. Chicago: Markham Publishing Co., 1970.

Ervin-Tripp, S. "Perspectives on Children's Speech Acts." American Anthropological Assoc. Symposium on Children's Discourse, Mexico City, 1974.

Garfinkel, H. Studies in Ethnomethodology. Englewood Cliffs, New Jersey: Prentice Hall, 1967.

Goffman, E. Frame Analysis: An Essay in the Organization of Experience. New York: Harper and Row, 1974.

Halliday, M. A. K. "Early Language Learning: A Sociolinguistic Approach." Ninth International Congress of Anthropological and Ethnological Sciences, 1973.

Hopper, R., & Naremore, R. C. Children's Speech: A Practical Introduction to Communication Development. New York: Harper and Row, 1973.

Hymes, D. H. "The Ethnography of Speaking." In Gladwin and Sturtevant (Eds.) Anthropology and Human Behavior. 1962.

Hymes, D. H. "Sociolinguistics and the Ethnography of Speaking." The Association of Social Anthropoligists, University of Sussex, 1969.

Jakobson, R. "Closing Statement: Linguistics and Poetics." In T. A. Seabeak (Ed.) Style and Language. Cambridge, Massachusetts: The M. I. T. Press, 1960.

Keenan, E. O., and Schieffelin, B. B. "Topic as a Discourse Notion: A Study of Topic in the Conversation of Children." To appear in Li, C. (Ed.) Subject and Topic.

Labov, W. "The Logic of Nonstandard English." In F. Williams (Ed.) Language and Poverty. Chicago: Markham Publishing Co., 1970.

Rodnick, R. & Wood, B. "The Communication Strategies of Children." The Speech Teacher, 1973, 23(2), 114-124.

Sanches, M. "How to Talk With a Child, Some Interactional Rules." The American Anthropoligical Association Symposium on Children's Discourse, 1975.

Speech Communication Association Task Force for Speech Communication Competence, K-12. Progress Report, 1976.

Wells, G. "Coding Manual for the Description of Child Speech." The Study of Language Development in Preschool Children. University of Bristol, School of Educ.: Bristol, England, 1975.

Wood, B. Children and Communication: Verbal and Nonverbal Language Development. Englewood Cliffs, New Jersey: Prentice Hall, 1976.